



# *Office of the Army Surgeon General*

---

# **Respiratory Disease Surveillance U.S. Army**

**P.K. Underwood**  
**Preventive Medicine Staff Officer**  
**Proponency Office for Preventive  
Medicine**  
**Office of the Surgeon General**

---



# **Respiratory Disease Surveillance**

## **U.S. Army**

---

- Acute Respiratory Disease (ARD) is a leading cause of morbidity
- Military is susceptible to outbreaks, especially in basic training
- Host, agent and environmental factors combine to provide “opportunity”
- Routine surveillance of ARD among Basic Trainees since 1967



# **Respiratory Disease Surveillance**

## **U.S. Army**

---

- For surveillance purposes, and ARD case is defined as a trainee with all of the following:
  - Oral temperature > 100.5 F.
  - Recent onset of at least one sign or symptom of acute respiratory tract inflammation
  - Given a limited duty profile or removed from duty for at least 8 hours



# **Respiratory Disease Surveillance**

## **U.S. Army**

---

- Routine tracking of indicators of streptococcal disease activity
- Weekly calculation of:
  - Strep Recovery Rate
  - Streptococcal-ARD Surveillance Index (SASI)
- Monitor sick call at TMCs for trends in ARD



# **Respiratory Disease Surveillance**

## **U.S. Army**

<b>Name of Index</b>	<b>Formula</b>	<b>Comments</b>
<b>Strep Recovery Rate</b>	<b>Pos Strep Cultures Among ARD cases X 100/ Total cultures among ARD cases</b>	<b>Calculate weekly. Observe over time for trends</b>
<b>Strep-ARD Surveillance (SAS) Index</b>	<b>Strep Recovery Rate X (ARD Cases) X 100/ # Trainees</b>	<b>Calculate weekly. If &gt; 25 for 2 consecutive weeks, indicates significant strep disease activity</b>



# • *Respiratory Disease Surveillance* U.S. Army

---

- Vaccines have had remarkable success
- Trainees are given vaccines for:
  - Influenza
  - Measles
  - Rubella
  - Meningococcal disease



# **Respiratory Disease Surveillance**

## **U.S. Army**

---

- Bicillin prophylaxis administered to trainees to prevent Group A, beta-hemolytic streptococcal (GABHS) disease
- Ft. Leonard Wood reports Bicillin prophylaxis used in trainees continuously since 1996. If streptococcal disease is found within a company or battalion of recruits 4 weeks or more after the original Bicillin prophylaxis, another dose is administered to the entire company or battalion



# **Respiratory Disease Surveillance**

## **U.S. Army**

---

- Ft. Knox reports Bicillin prophylaxis has not been used since 1996, except for one outbreak of streptococcal disease among trainees
- Ft. Sill reports Bicillin prophylaxis for every trainee since 1998. They also administer a 2<sup>nd</sup> dose if strep disease is found 4 or more weeks after original dose



# *Respiratory Disease Surveillance*

## *U.S. Army*

---

- Ft. Jackson reports that BP has not been used since 1998
- Ft. Benning reports BP used in trainees continuously since 1998.



# *Respiratory Disease Surveillance*

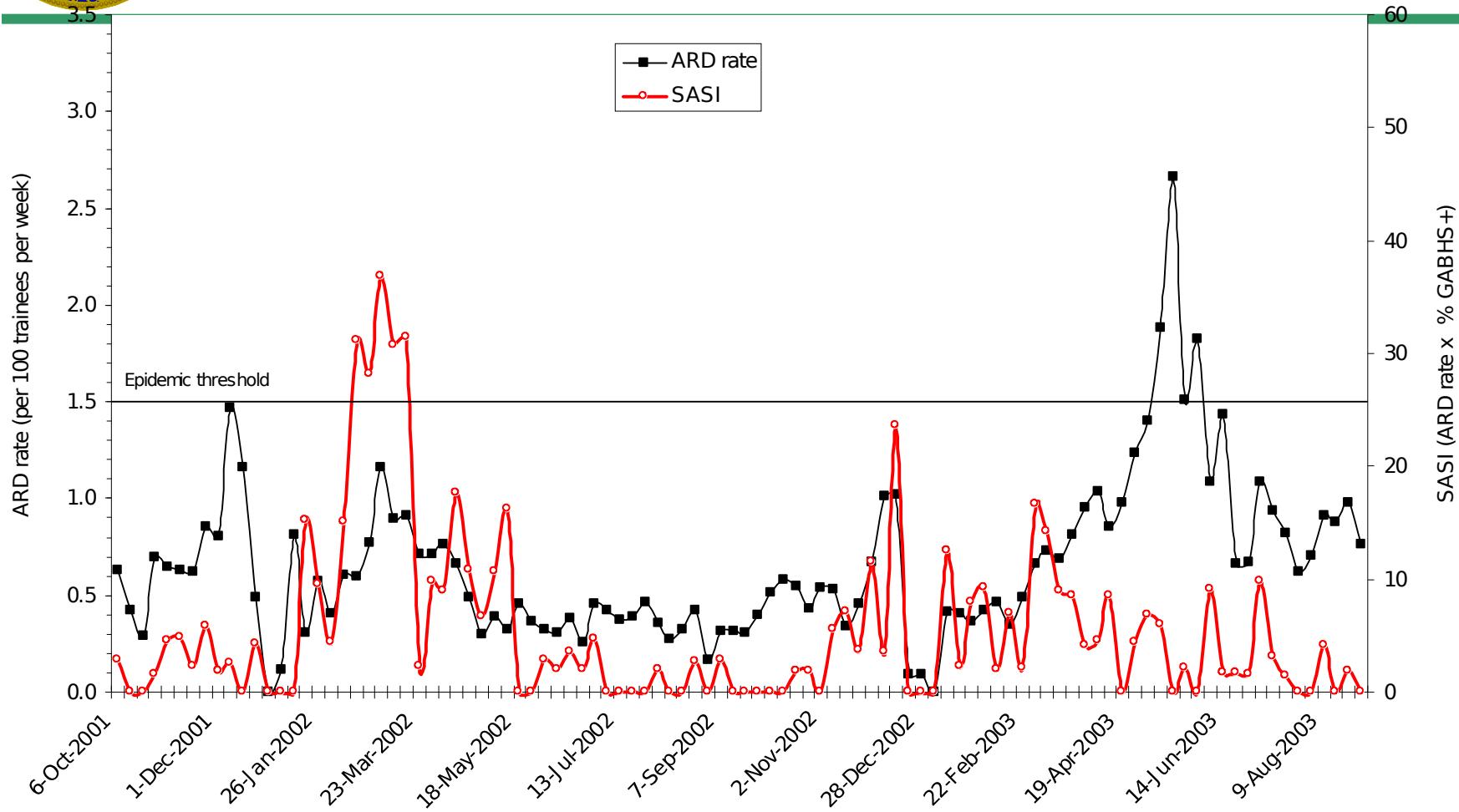
## *U.S. Army*

---

- Preventive Medicine Chiefs at BCT installations submit the Acute Respiratory Disease Surveillance Report (ARDSR) on a weekly basis
- AMSA consolidates and analyzes the ARDSR

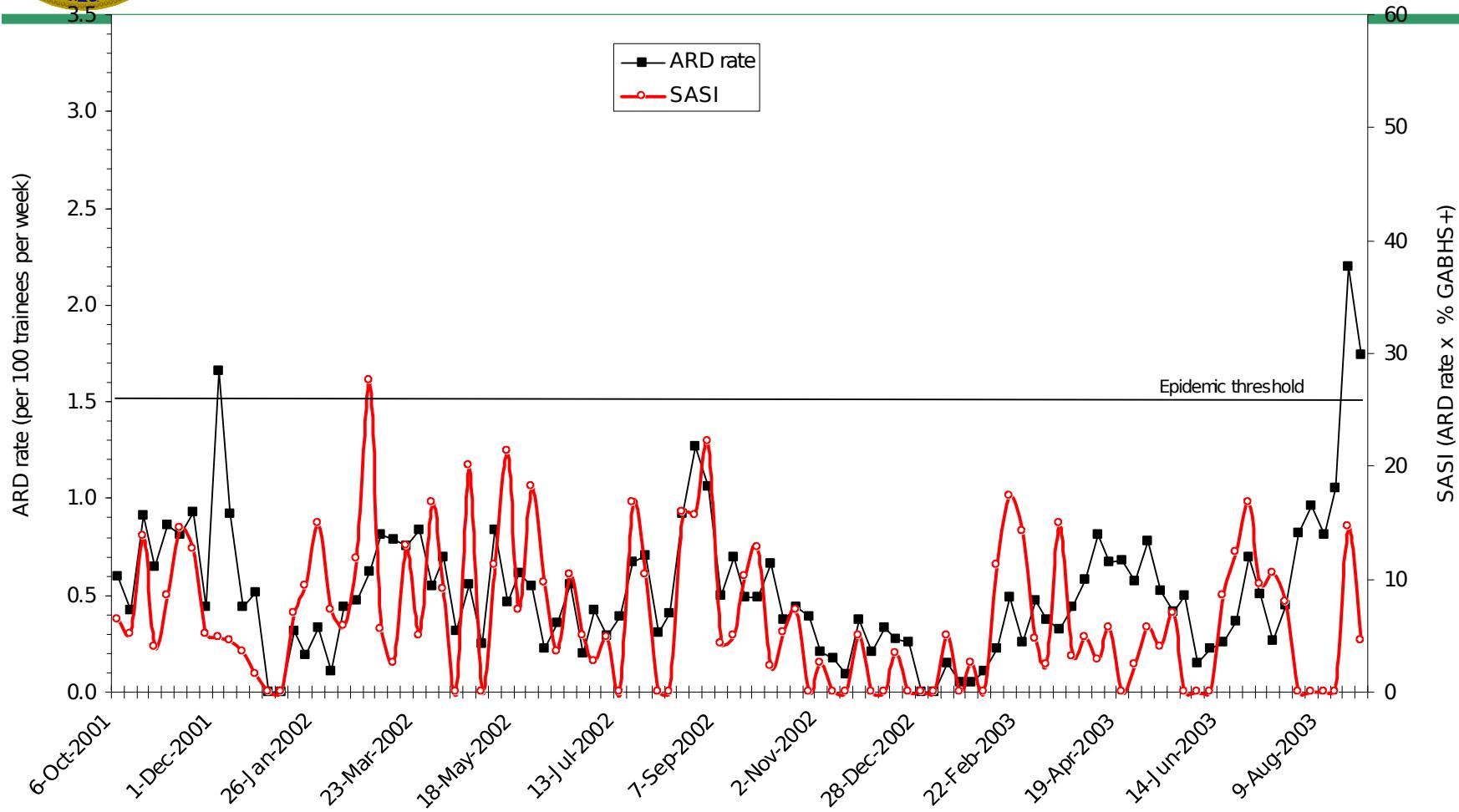


# ARD and GABHS surveillance results, basic trainees, Fort Leonard Wood, Missouri



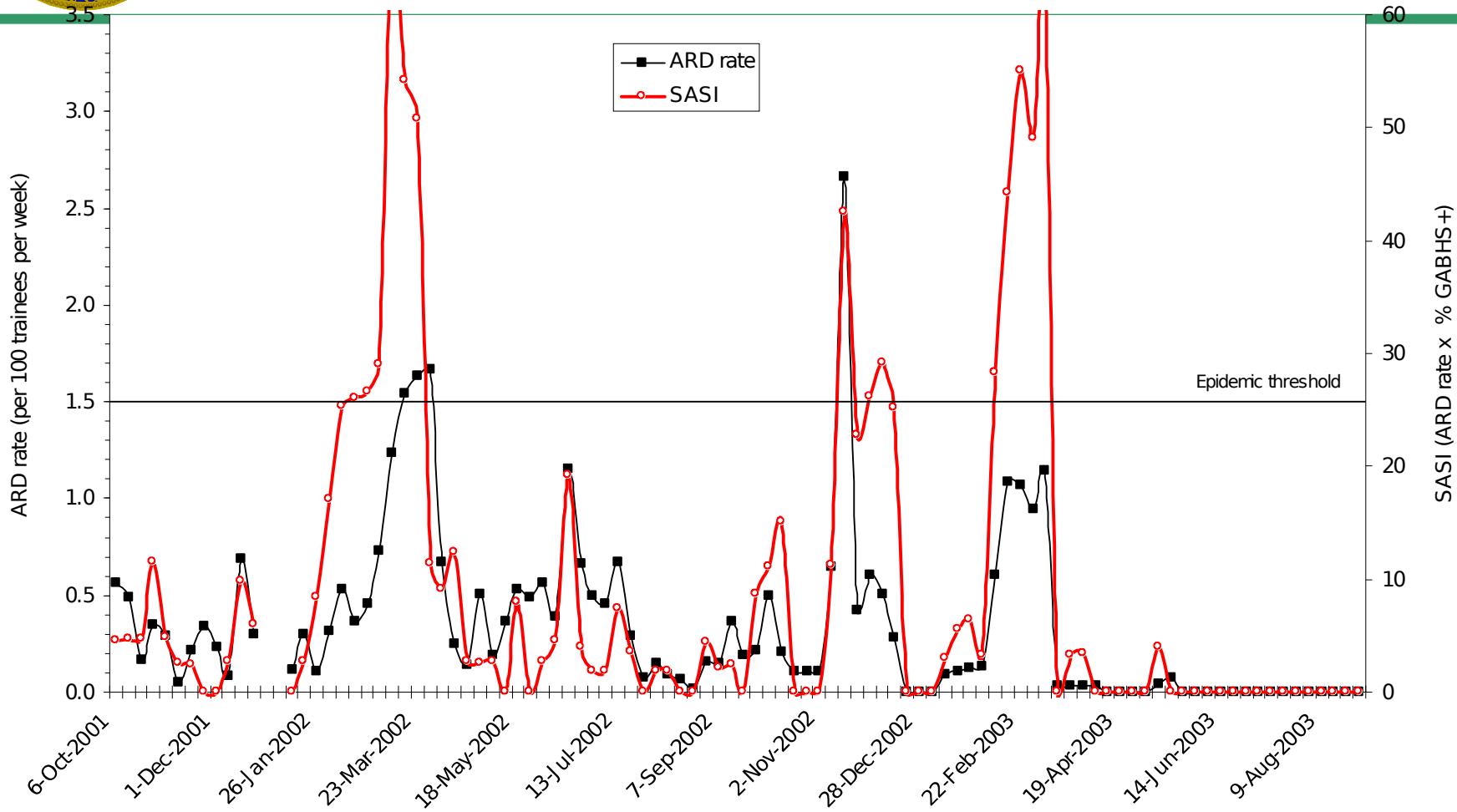


# ARD and GABHS surveillance results, basic trainees, Fort Knox, Kentucky



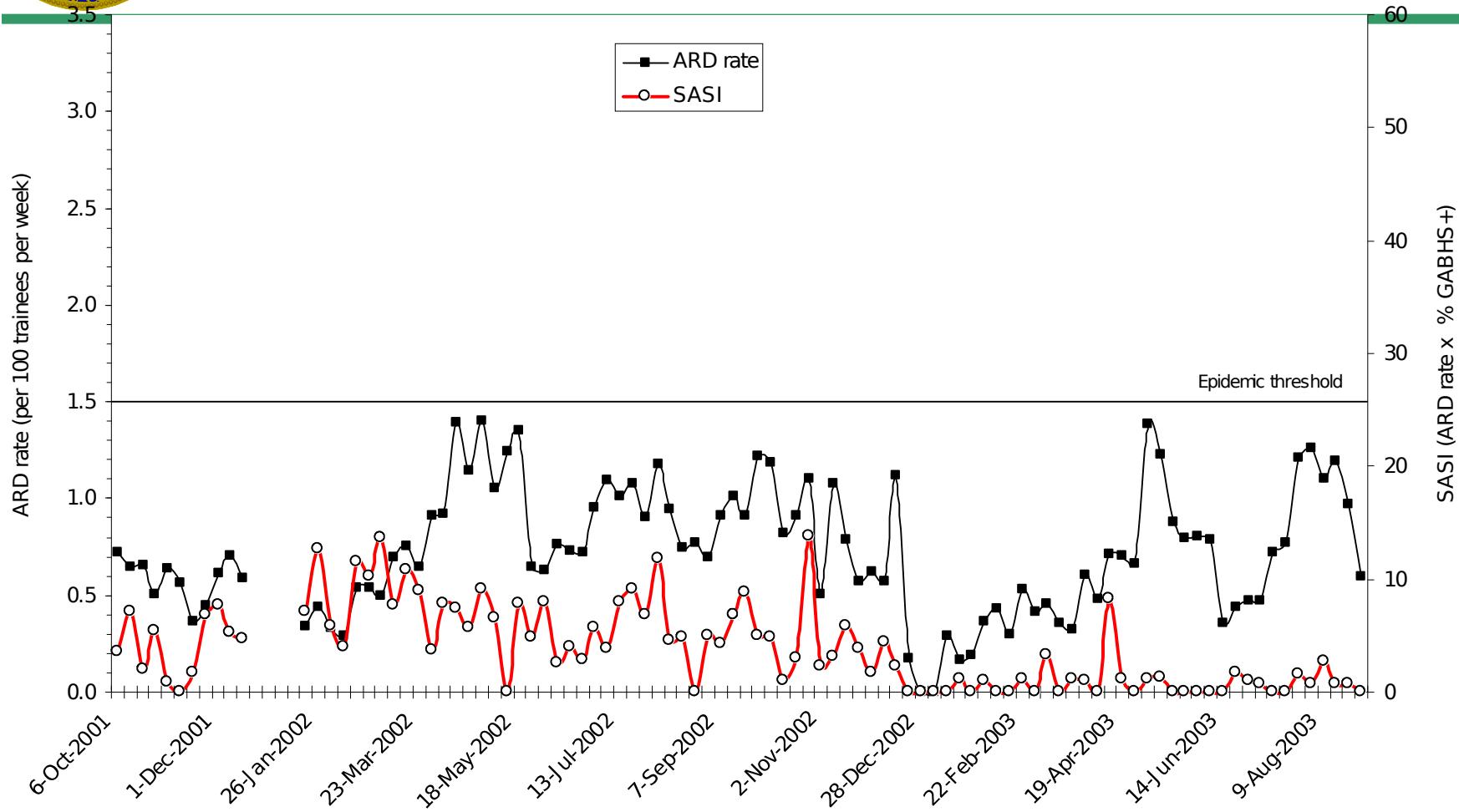


# ARD and GABHS surveillance results, basic trainees, Fort Sill, Oklahoma





# ARD and GABHS surveillance results, basic trainees, Fort Jackson, South Carolina





# ARD and GABHS surveillance results, basic trainees, Fort Benning, Georgia

